Members of the Commission,

There are valid questions regarding the interference to other users of radio spectrum caused by the technology known as BPL - broadband over power line. This technology introduces enormous amounts of interference. For example, it had been calculated by scientist in Japan who deal in radio astronomy (1) that in order for a single BPL modem to not interfere with their work, it is necessary for the modem to be separated from the radio astronomy receiver by a distance of 424 km, or about 265 miles. This is for a single modem. If additional BPL systems are deployed until only 10,000 are in place, the required separation distance is then greater than the circumference of the earth. The scientist conclude that BPL is not compatible with them continuing their work.

Other users will be similarly impacted. There are available taped audio segments of the interference produced by this technology. Some of these tapes were made as far as 156 meters (~500 ft.) from the BPL modem. In all cases the interference is intolerable. I would think that the communications that now occur between aircraft cockpit crews and ground controllers would be seriously degraded if this technology is widely deployed.

What about the hiker who carries a low power amateur transmitter to call for aid should an emergency arise? His tiny signal will be completely lost in the noise produced by BPL.

Due to knowledge acquired in careful interference studies, Japan declined to allow this technology to be implemented. I strongly encourage the FCC to take a similarly deliberate approach and fully study the impact of the technology.

The industry paper (2) states:

"Streamlining and timeliness. Any proceeding that the Commission might initiate
should strive to meet two goals: regulatory streamlining and prompt resolution."

and then:

"Above all, prompt resolution of any PLC-related proceeding is absolutely
essential."

It appears that the industry is trying to pressure the FCC into a harried and poorly formed decision. Considerable study needs to be done prior to any decision on this matter. And contrary to the industry's claim of needed-right-now, ready-to-market, the trial in the Netherlands has been discontinued (3), not due to the interference produced, but because the technology is, in fact, not yet commercially viable. If the industry demands prompt resolution, the FCC should follow the wise lead of Japan and promptly decline the technology.

I also note that the industry does not list as one of its top concerns that it is important to be assured that other users of the spectrum will continue to be able to perform their needed functions. The industry is concerned only that regulations be streamlined and that they be given the go-ahead.

The industry document makes no mention of any joint study to determine the impact of this technology on other users. All studies to date in which the industry has participated have been industry-only studies which are hopelessly skewed in the industry's favor.

If the industry is so confident of the complete lack of interference, why have they so far declined to jointly study the question? If the interference level were as low as they claim, they would be eager to have all radio users join in a trial to demonstrate this claimed lack of interference. Instead of the needed eagerness to prove lack of interference, we have not one single shred of evidence to support their claim. I think this tells us all we need to know about the interference level. It is so high as to be a intolerable, the industry knows this and hopes to railroad this through with no one even studying the question.

As a radio amateur who will be significantly affected by the noise introduced by BPL I strongly encourage the Commission to decline to deploy this technology. While broadband access is a highly desirable goal, it is not worth destroying a significant portion of the services now using the radio spectrum. The societal harm outweighs the potential benefits.

Yours truly,

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References:

1: "Sharing Studies Between the Radio Astronomy Telescopes and the Power Line Communication Systems in the HF Region." by Ohishi, Nakajima, Tokamaru; March 2003

2: "UPLC/ PLCA Joint Report to the FCC" by United Power Line Council and the Power Lines Communications Association

3: "NUON discontinues PLC test" (in Dutch) from Webwereld

All references are available from the ARRL web site.